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Genital talc use may be linked to increased risk of ovarian cancer

New study by NIEHS scientists provides compelling evidence that genital talc use is associated with an increased risk of ovarian cancer.

Using talcum powder as an intimate care product may be linked with increased risk of developing ovarian cancer, according to a new study led by NIEHS scientist Katie O'Brien, Ph.D.

(<https://www.niehs.nih.gov/research/atniehs/labs/epi/pi/chronic/staff/obrien/>), Dale Sandler, Ph.D.

(<https://www.niehs.nih.gov/research/atniehs/labs/epi/pi/chronic>), chief of the NIEHS Epidemiology Branch, and collaborators. The study

(<https://pubmed.ncbi.nlm.nih.gov/38748950/#:~:text=In%20models%20adjusted%20for%20exposure,with%20breast%20uterine%20cancer.>) — the first of its kind to include detailed data on women's use of intimate care products across the entire life course — was published May 15 in the Journal of Clinical Oncology along with an accompanying editorial (<https://ascopubs.org/doi/10.1200/JCO.24.00602>).

This extensive analysis, conducted using information collected from women in the Sister Study

(<https://sisterstudy.niehs.nih.gov/English/index1.htm>) cohort, revisits the association between intimate care products and cancer and incorporates rigorous adjustments for biases that might have affected the results of earlier studies. The study analyzed data from a cohort of women who were initially cancer-free who reported their use of intimate care products like genital talc and douching over time. An especially unique aspect of the study was the use of quantitative bias analysis to assess the impact of potential errors in reporting use of intimate care products, including possible differential reporting related to being diagnosed or not diagnosed with cancer.

"Despite challenges in assessing exposure history and biases inherent in retrospective data, our findings are robust, showing a consistent association between genital talc use and ovarian cancer," said O'Brien, the lead study author. "This study leverages detailed lifetime exposure histories, and the unique design of the Sister Study, to provide more reliable evidence that supports a potential association between long-term and frequent genital talc use and ovarian cancer."



O'Brien, left, and Sandler, right, said there is no medical reason to use these products. If women are using these products, they might want to reduce their frequency of use, look for alternatives, or talk to their doctor about their concerns. (Photo courtesy of Steve McCaw / NIEHS)

Key findings

The researchers examined the association between the use of intimate care products, specifically genital talc and douching, and the risk of hormone-related cancers such as ovarian, breast, and uterine cancers, correcting for potential biases like recall bias and exposure misclassification. The study involved 50,884 women from the Sister Study cohort, all of whom had a sister diagnosed with breast cancer, providing a unique perspective on the genetic predisposition to hormone-related cancers.

The key findings are as follows.

- Persistent positive association between genital talc use and ovarian cancer, with the strongest associations observed for frequent and long-term users and for use during the reproductive years.
- No significant associations found between genital talc use or douching and breast or uterine cancer.
- Douching showed a possible association with ovarian cancer, warranting further investigation.

Significance and next steps

These findings contribute significant insights into the ongoing debate about the safety of intimate care products and underscore the need for further research and potential reevaluation of the safety of these products.

The researchers advocate for examination of the specific chemicals in intimate care products that may influence cancer risk and encourage further studies to replicate these findings in different populations.

Citations:

Harris HR, Davis CP, Terry K. 2024. Epidemiologic methods to advance our understanding of ovarian cancer risk. *J Clin Oncol* JCO2400602.

O'Brien KM, Wentzensen N, Ogunsina K, Weinberg CR, D'Aloisio AA, Edwards JK, Sandler DP. 2024. Intimate care products and incidence of hormone-related cancers: a quantitative bias analysis (<https://pubmed.ncbi.nlm.nih.gov/38748950/#:~:text=In%20models%20adjusted%20for%20exposure,with%20breast%20or%20uterine%20cancer.>). J Clin Oncol JCO2302037.

(This article is based on a May 15 press release (<https://society.asco.org/about-asco/press-center/news-releases/study-finds-association-between-genital-talc-use-and-increased>) by the Journal of Clinical Oncology.)

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